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THE AFRICAN LAUXANIIDAE (DIPTERA)

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The number of described species of Lauxaniidae (Sapromyzidae) from Africa is quite small in comparison with the other continents, only about forty species being described up to the present time. Since collections before me contain a number of undescribed forms and representatives of genera not previously known from the Ethiopian Region a review of the species is given.

Key to Genera

1.—Scutellum greatly enlarged, concealing the abdomen....12.
Scutellum not enormously enlarged....2.
2.—Only one pair of frontal bristles....*Katalauxania* Hendel.
Two pairs of frontal bristles....3.
3.—Face convex in profile at least in the middle, the third antennal segment not elongate....4.
Face straight or concave in profile, if slightly convex the antennae elongate...8.
4.—Front produced forward and more prominent than the face....5.
Front not produced....6.
5.—Ocelli situated far forward, on the top of the frontal swelling..*Turriger* Kertesz.
Ocelli situated behind the middle of the front....*Cestrotus* Loew.
6.—Anterior frontal bristles situated much closer to each other than the upper pair and strongly decussate....*Physegenua* Macquart.
Anterior frontals practically as close to the orbits as the upper pair....7.
7.—Occiput concave behind the eyes....*Afrolauxania*, new genus.
Occiput convex....*Pachycerina* Macquart.
8.—Parafacials with group of hairs above....*Amphicyphus* deMeijer.
Parafacials without hair....9.
9.—Third antennal segment long and narrow, at least three times as long as wide.10.
Third antennal segment elongate oval, seldom twice as long as wide....11.
10.—First antennal segment fully as long as the second....*Lauxania* Latreille.
First antennal segment much shorter than the second....*Halidayella* Hendel.
11.—The short, black setulae are continued along the costa to the tip of the third vein....*Homoneura* Wulp.
These setulae extend to at most halfway between the second and third veins. *Sapromyza* Fallen
12.—Discal and second basal cells united....*Acelyphus* Malloch.
A crossvein separating the discal and second basal cells....*Celyphus* Dalman.

KATALAUXANIA HENDEL

There is but one described species belonging to this genus.

Katalauxania variipennis Hendel

HENDEL, 1925, Encyl. Ent., Ser. B., Dipt. II, p. 133.

Described, apparently from a single specimen, from Kilimandjaro, East Africa. It is unknown to me.

CESTROTUS LOEW

This genus is easily recognized by the long, convex face, wide cheeks and protuberant front, the ocellar triangle being situated well back, but still far before the vertex. In the closely related *Turriger* Loew the ocellar triangle is situated far forward on the frontal tubercle. *C. megacephalus* Loew is the genotype.

TABLE OF SPECIES

1.—Front with yellow spot above each antenna.....2.
Front wholly opaque black immediately above the antennae.
cuthbertsoni, new species.

2.—Apex of the wing broadly brownish gray; face brownish in ground color; basal antennal segments brown.....*megacephalus* Loew.
Apex of the wing cinereous hyaline; face yellowish on lower half, basal antennal segments more than half reddish.....*variegatus* Loew.

Cestrotus cuthbertsoni, new species

Figure 1

MALE.—Front almost twice as wide as long, the anterior third black, the broad sides and the anterior margin opaque black, the median third densely gray pollinose, the upper third brown except along the orbits; the anterior bristles arise from small grayish-brown spots that are not clearly connected with the gray pollen; the long ocellars are situated conspicuously in front of the anterior ocellus and the postocellars are long and cruciate; verticals and outer verticals strong. Occiput black, thickly gray pollinose. Face and cheeks brownish red, thickly white pollinose. Cheeks with an outstanding bristle below; facial ridges with a row of short, black hairs. Face evenly convex below, above with an opaque brownish-black fascia that leaves a transverse yellow, thickly silvery white pollinose spot on each side opposite the antennae. Palpi brown. Antennae brown, the third segment brownish red on more than the lower half; arista brown, moderately long plumose.

Thorax black in ground color, densely cinereous white pollinose, the mesonotum mostly brown. The brown of the mesonotum consists of very broad sublateral vittae that are more or less united with the extremely broad but irregular median vitta, and an additional two or three brown dashes toward each side. The scutellum is gray pollinose with three small brown spots basally, the lateral ones round, the median one elongate. The prescutellars are strong and there are only two pairs of strong dorsocentrals.

Legs brown, cinereous pollinose, the tarsi reddish, becoming brown apically, the anterior tibiae brownish red.

Wings grayish brown and cinereous hyaline, as in figure 1. Squamae white. Halteres yellow.

Abdomen black in ground color, brown and pale pollinose. The pale pollen is grayish basally but becomes whitish toward the apex of the abdomen. First segment brown, the second to fourth with the apices very broadly brown and each with a broad median vitta; fifth and sixth segments with brown median vitta, the fifth with just the apex brown; seventh segment reddish in ground color. Genitalia brownish, with pale pollen.

HOLOTYPE.—Male, Chirinda Forest, November, 1930 (A. Cuthbertson).

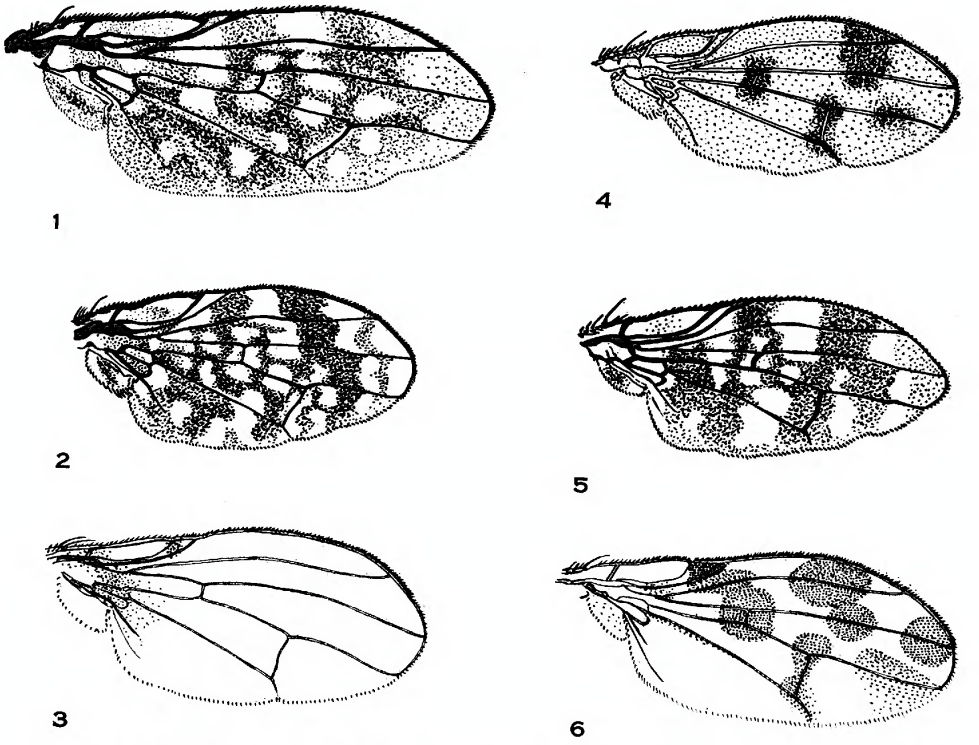

Fig. 1. *Cestrotus cuthbertsoni*, n.sp. Fig. 2. *C. variegatus* Loew. Fig. 3. *Afrolauxania bequaerti*, n.sp. Fig. 4. *Homoneura laxifrons*, n.sp. Fig. 5. *Cestrotus megacephalus* Loew. Fig. 6. *Homoneura cuthbertsoni*, n.sp.

Cestrotus megacephalus Loew

Figure 5

LOEW, 1862, Ofvers. Kongl. Vet. Akad. Forh., XIX, p. 11.

Two females Msenge River, Eldorado, Southern Rhodesia, October, 1923 (W. L. Williams); male, Chirinda Forest, S. Rhodesia, November, 1930 (A. Cuthbertson).

Cestrotus variegatus Loew

Figure 2

Loew, 1862, Ofvers. Kongl. Vet. Akad. Forh., XIX, p. 11.

Male, Chirinda Forest, Southern Rhodesia, November, 1930 (A. Cuthbertson).

Cestrotus tibialis Bezzi

Bezzi, 1908, Boll. Soc. Ent. Ital., XXXIX, p. 126.

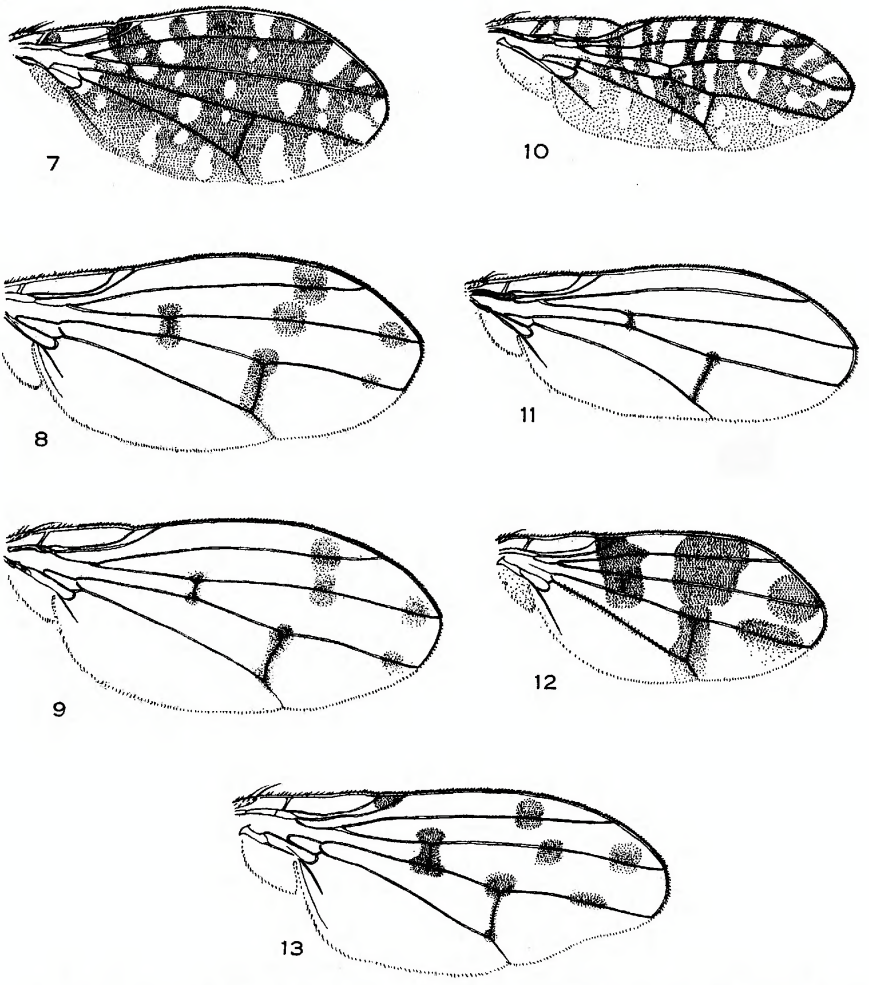

Fig. 7. *Homoneura bequaerti*, n.sp. Fig. 8. *H. rhodesi*, n.sp. Fig. 9. *H. alexis*, n.sp. Fig. 10. *Amphicyphus africanus*, n.sp. Fig. 11. *Homoneura chapini*, n.sp. Fig. 12. *H. liberia*, n.sp. Fig. 13. *H. africana* Adams.

This species was described from Eritrea. It is said to differ from *megacephalus* by the presence of four white spots on the anterior of the front (*megacephalus* has two, from which the bristles arise) and the color of the tibiae. The tibiae of Loew's species are variable in color. *C. variegatus* has four white spots, one on each side of the front immediately above the opaque black lateral spots. Without specimens *tibialis* cannot well be placed in a key.

Turriger Kertesz

This genus is very similar in appearance to *Cestrotus* but the ocelli are placed far forward on the front, being located on the top of the obtusely triangular median projection. There is only one known species from Africa.

Turriger turritus Loew

Cestrotus turritus Loew, 1862, Ofvers. Kongl. Vet. Akad. Forh., XIX, p. 10.

Physegenua Macquart

Physogenia auct.

It is doubtful that this genus occurs in the Ethiopian Region. I have tentatively placed the two described species in *Afrolauxania.*

Afrolauxania, new genus

Very similar to *Physegenua* Macquart but at once distinguished by the presence of strong acrostical bristles and the position of the anterior frontals. Differs from *Pachycerina* Macquart by the concave occiput. In *Pachycerina* the back of the head is convex behind the upper half of the eyes and there are bristles directly behind the ocelli.

Face and front convex and on nearly the same plane. Two pairs of frontals, the anterior pair only slightly weaker than the posterior, situated only slightly nearer to each other and at most weakly convergent; ocellars absent; postocellars situated well outside the ocellar triangle; back of head concave; facial ridges with two or three hairs below the middle in addition to the usual row extending forward from the cheeks; first antennal segment shorter than the second; arista short plumose. Thorax with the following bristles: two sternopleurals, four scutellars, four acrosticals, three dorsocentrals, one presutural, one humeral, two notopleurals, two supra-alars and one on the posterior calli. Legs, wings and abdomen normal for the family.

Genotype.—*A. bequaerti*, new species.

Judging from the descriptions *Physegenua submetallica* Loew and *P. bimaculata* Adams belong to this genus. The latter has been placed as a synonym of *submetallica* by Speiser, probably correctly so, but Loew's description is very brief and the two may be distinct.

TABLE OF SPECIES

1.—Scutellum with two black spots.....2.
Scutellum wholly yellow.....*bequaerti*, new species.
2.—Anterior crossvein clouded with brown.....*submetallica* Loew.
Anterior crossvein not clouded with brown.....*bimaculata* Adams.

Afrolauxania bequaerti, new species

Figure 3

Yellowish, with blackish abdomen. Length, 4 mm.

MALE.—Head yellow, the face and front shining rusty reddish; palpi reddish yellow. Antennae brownish red, the arista mostly black, short plumose.

Thorax yellow, the dorsum slightly darker than the pleura and with very thin whitish pollen.

Legs wholly yellow.

Wings cinereous hyaline, with luteous tinge, light brown toward the base. Squamae yellow. Knobs of halteres brownish red.

Abdomen brown, perhaps partly stained. Genitalia brownish red.

HOLOTYPE.—Male, Du River Camp No. 3, Liberia (J. Bequaert).

PACHYCERINA MACQUART

There is but one described species from Africa.

Pachycerina vaga Adams

ADAMS, 1905, Kans. Univ. Sci. Bull., III, p. 172.

The species was described from Southern Rhodesia but does not seem to have been collected since.

AMPHICYPHUS DE MEIJERE

This genus is known from the Indo-Australian region but I have a representative from Africa. It is peculiar because of the presence of long, erect hairs on the head.

Amphicyphus africanus, new species

Figure 10

Yellowish, brown and grayish, the wings brown and whitish. Length, about 3 mm.

MALE.—Front rusty yellow, the bristles arising from reddish-brown spots, the anterior bristles somewhat convergent; anterior half with long hairs, those on the middle section convergent, the ones on the parafrontals in not more than two rows; ocellars long. Occiput, face and cheeks yellow, the face with two brown orbital spots on each side, one opposite the antennae, the second near the lower edge of the eye, and three small ones on the oral margin, the lateral oral margin with a brown spot in front. Occiput with long bristly hairs that extend along the cheeks and onto the oral angles, the parafacials with a tuft of hairs near the upper border. Proboscis brownish yellow, the palpi yellow, slender. Antennae yellowish, the third segment tapering to a point and curved upward; arista pubescent, brown apically.

Mesonotum reddish and brown, the brown predominating outside the dorsocentrals but crossed in several places by gray or reddish yellow, the pale median area crossed by rather wide brownish red spots. Scutellum brown with cinereous pollen that leaves a broad irregular brown band across the middle, in shape, strongly narrowed to near the middle, the sides thence almost parallel to the truncate, medianly sulcate apex. The hairs and bristles are long. There are five pairs of acrosticals and four pairs of dorsocentrals.

Legs yellow, the femora each with a broad brown band near the apical third, the anterior four with brownish basal bands, the tibiae with bands near the basal and apical third, tarsi brownish yellow.

Wings pale brownish and whitish as in figure. Squamae pale yellow, with darker border. Halteres yellow.

Abdomen yellowish, the bristles each arising from moderately large brown spot, the second and following segments with rather narrowly separated paired, basal brown spots, those on the second segment larger and partly united, the first segment broadly brown in the middle on its whole length. The pale areas are covered with yellowish-white pollen. The hairs are sparse and erect.

HOLOTYPE.—Male, Du River Camp No. 3, Liberia (J. Bequaert).

LAUXANIA LATREILLE

The following table contains only the species described by Loew and the undescribed forms before me. It is probable that most of them belong to *Halidayella*.

TABLE OF SPECIES *Lauxania* AND *Halidayella*

1.—Halteres with black knob.....2.
Halteres pale.....4.
2.—Thorax metallic green.....*L. torso*, new species.
Thorax not bright green, though with metallic reflections.....3.
3.—Arista with long rays.....*gagatina* Loew.
Arista almost bare.....*atrovirens* Loew.
4.—Pleura reddish.....*chlorogastra* Loew.
Pleura black or brown.....5.
5.—Face shining.....*H. indecora* Loew.
Face pale pollinose.....6.
6.—Sides of the mesonotum reddish.....? *anceps*, new species.
Mesonotum wholly dark.....7.
7.—Anterior border of the front reddish, tarsi reddish.....*oblonga* Loew.
Front wholly shining black; front tarsi black with the first segment whitish.
clypeata Loew.

Lauxania torso, new species

Legs reddish, the front tibiae and tarsi black; wings slightly yellowish in front. Length, 3.5 mm.

MALE.—Front brown below, blue-green on more than the upper half, the orbits more or less violaceous; median third of the upper portion whitish pollinose except for a wedge extending forward from the ocellar triangle. Occiput blue, white polli-

nose on the lower half; cheeks and face bronze black, the orbits white pollinose. Palpi brown. Basal antennal segment yellow, the others missing.

Thorax green, the sides of the mesonotum more or less cyaneous, the whole thinly cinereous pollinose. Three pairs of dorsocentrals; anterior sternopleural weak.

Legs reddish, the anterior tibiae and tarsi black; all coxae pale.

Wings cinereous hyaline, slightly yellowish in front; veins yellowish. Knob of halteres brown.

Abdomen bronze black, shining; hair wholly black.

HOLOTYPE.—Male, Chirinda Forest, Southern Rhodesia, November, 1930 (A. Cuthbertson).

Halidayella indecora Loew

Lauxania indecora LOEW, 1862, Ofvers. Kongl. Vet. Akad., XIX, p. 10. South Africa.

Greenish black, the thorax with cinereous brown and cinereous pollen; legs mostly reddish yellow. Length, 3 to 3.5 mm.

Front rather dull blackish, the broad orbits shining blackish green on the upper two-thirds. Occiput black, whitish pollinose on the lower half; cheeks and face shining metallic black, the orbits whitish pollinose. Antennae reddish yellow with the third segment almost all black; arista brown, pubescent, broadly reddish yellow basally.

Thorax greenish black, rather thinly cinereous brown pollinose above and cinereous pollinose on the sides and sternum. Three pairs of dorsocentrals; anterior sternopleural moderately strong.

Legs reddish yellow, the anterior tibiae and tarsi black; posterior four femora blackish on more than the basal half; posterior four coxae brown with pale apices.

Wings with slight luteous tinge, the veins yellow. Halteres and squamae yellow.

Abdomen shining blackish green; hair black.

Male and female, Salisbury, Southern Rhodesia, February, 1932 (A. Cuthbertson).

Lauxania? anceps, new species

Blackish, the head and thorax partly reddish yellow; legs yellowish. Length, 5.5 mm.

MALE.—Front and upper third of the occiput shining black, a spot of white pollen above the neck; outer verticals long. Occiput, cheeks and face reddish yellow, the facial orbits white pollinose. Face rather strongly receding, not convex, the oral margin not produced. Proboscis brown; palpi black. Antennae wholly black, situated on the prominently produced juncture of the face and front, their base much more produced in front of the eyes than in other species; arista white, rather strongly pubescent.

Thorax shining brownish black, very thinly brownish pollinose, the sides of the mesonotum broadly yellow in front of the wings, the metanotum and upper part of the pleura behind the wings reddish yellow. Two pairs of dorsocentrals; anterior sternopleural weak.

Legs reddish yellow, the front tarsi and apices of the middle pair brown; anterior coxae yellow, white pollinose.

Wings pale luteous, more yellowish basally, the veins yellow. Squamae and halteres yellowish.

Abdomen shining black; black-haired.

HOLOTYPE.—Male, Chirinda Forest, Southern Rhodesia, November, 1930 (A. Cuthbertson).

This species can scarcely remain in *Lauxania* but it seems advisable to retain it here for the present.

ADDITIONAL SPECIES OF *Lauxania*

atrovirens LOEW, 1862, Ofvers. Kongl. Vet. Akad. Forh., XIX, p. 9 (South Africa).

chlorogaster LOEW, 1862, Ofvers. Kongl. Vet. Akad. Forh., XIX, p. 10 (South Africa).

clypeata LOEW, 1862, Ofvers. Kongl. Vet. Akad. Forh., XIX, p. 9 (South Africa).

crinicornis THOMSON, 1868, 'Eugenies Resa,' p. 568 (Mauritius).

elisae MEIGEN, 1826, 'Syst. Beschr. Eur. Dipt.,' V, p. 297 (Europe). ADAMS, 1905, Kans. Univ. Sci. Bull., III, p. 175 (Southern Rhodesia). The identification should be verified.

flavipes BEZZI, 1908, Boll. Soc. Ent. Ital., XXXIX, p. 128 (Eritrea).

gagatina LOEW, 1852, Berichte Kongl. Akad. Berlin, p. 661 (Mozambique); 1862, Peter's 'Reise Mozambique,' V, p. 32.

metallica WIEDEMANN, 1830 'Aussereur. Zweifl.,' p. 662 (South Africa).

oblonga LOEW, 1862, Ofvers. Kongl. Vet. Akad. Forh., XIX, p. 10 (South Africa).

HOMONEURA WULP

The following key contains only species known to belong to this genus. Almost all of the species listed under *Sapromyza* probably belong here.

TABLE OF SPECIES

1.—Wings with dark markings in addition to those on the crossveins.....2.
Wings with dark markings only on the crossveins.....*chapini*, new species.
2. Abdomen yellowish, with a median row of brown spots apically and sometimes lateral spots.....3.
Abdomen differently marked.....5.
3.—Abdomen with lateral spots on each segment.....*obliquepunctata* Macquart.
Abdomen without lateral spots.....4.
4.—Front wider than long.....*trinotata* Loew.
Front slightly longer than wide.....*rhodesi*, new species.
5.—Costal border of the wing broadly brown, at most an indistinct pale spot at the apex of the second vein.....13.
Costal border not uniformly brown.....6.
6.—Abdomen with black or brown markings.....9.
Abdomen wholly pale.....7.
7.—Wings with four brown spots.....*laxifrons*, new species.
Wings with five or six spots.....8.

8.—Scutellum reddish brown, with border and median line yellow...*loewi* Malloch.
Scutellum wholly yellowish.....*alexis*, new species.
9.—Wings brown with many pale markings (Fig. 7).....*bequaerti*, new species.
Wings differently marked.....10
10.—Sides of scutellum brown, at least basally.....11.
Sides of scutellum wholly yellow.....*bilineata* Speiser.
11.—Brown spots on wings rather small and isolated.....*africana* Adams.
Brown spots larger and some fused.....12.
12.—Wings with a practically continuous brown fascia beyond the middle.
liberia, new species.
Wings without such fascia (Fig. 6).....*cuthbertsoni*, new species.
13.—Middle of mesonotum very broadly pale.....*terminalis* Loew.
The white vittae are separated by a geminate brown median vitta.
guttulata Macquart.

Homoneura chapini, new species

Figure 11

Rusty reddish, the abdomen with two black spots on each side, the wings darkened only on the crossveins. Length, 4 to 4.5 mm.

FEMALE.—Head dull rusty reddish, the posterior orbits pale on the lower half; front with a pair of thinly pollinose pale vittae in which the frontals are placed. Front a little longer than wide, on the anterior two-thirds with sparse, tiny black hairs; ocellars minute. Palpi reddish. Antennae rusty reddish, the arista mostly black and short black plumose.

Thorax rusty reddish, the margin of the scutellum paler. Pollen yellowish gray, not concealing the ground color; no dark vittae. Three pairs of dorsocentrals.

Legs reddish yellow; anterior femora with weak comb on apical half of anteroventral surface.

Wings cinereous hyaline or with luteous tinge, the crossveins clouded with pale brown. Squamae brownish red, the border blackish exteriorly, the fringe rather golden or tawny. Halteres yellow.

Abdomen rather shining, with very thin yellowish pollen, sides of fourth and fifth segments with round, opaque black spot, those on the fourth segment large; second segment with indications of a large, median brown spot on the anterior half. Each segment with a row of marginals.

TYPES.—Holotype, female, Lukolela, Belgian Congo, January 13, 1931 (J. P. Chapin). Paratype, female, Du River Camp No. 3, Liberia (J. Bequaert).

Homoneura obliquepunctata, Macquart

Sapromyza obliquepunctata MACQUART, 1846, 'Dipt.-Exot.,' Suppl. I, p. 204 (f).

I have not seen this species. It is apparently related to *rhodesi* new species, but differs by possessing black spots on the sides of the abdominal segments and in lacking the subapical brown spot on the third longitudinal vein. It was described from the Cape and should be easily recognized.

It is possible, of course, that this species does not belong to *Homoneura* although its general characteristics indicate that it does.

Homoneura trinotata Loew

Sapromyza trinotata Loew, 1862, Ofvers. Kongl. Vet. Akad. Forh., XIX, p. 8.

Originally described from Caffraria. I have a single specimen, Izumu to Penge, Belgian Congo (J. Bequaert).

The wings have five pale brown spots, that on the fourth vein being in line with the one on the apex of the second vein and the anterior end of the posterior crossvein; the spot of the fourth vein is somewhat closer to the wing margin than to the crossvein. The posterior crossvein is straight and transverse and is evenly bordered with brown. The apical three abdominal segments each have a blackish median spot resting on the base, the apices of spots rounded. The ocellar bristles are moderately long.

Homoneura rhodesi, new species

Figure 8

Rusty reddish yellow; abdomen with incomplete median brown vitta; wings with six brown spots. Length, 4.5 mm.

Female.—Face and front yellowish white, the frontal vitta yellow; occiput reddish yellow. Front distinctly longer than wide, with tiny blackish hairs on the anterior two-thirds; ocellars long and strong. Palpi yellow. Antennae reddish, the arista brown and short plumose.

Thorax yellow, the dorsum rusty reddish and with grayish-yellow pollen that does not obscure the ground color. The mesonotum bears a pair of broad obscure reddish-brown vittae lying just inside the dorsocentrals and the scutellum is of the same color except on the border and a slender median line. Three pairs of dorsocentrals.

Legs yellowish; anterior femora with a very weak comb on the apical third.

Wings cinereous hyaline, tinged with luteous in front, and bearing six brown spots, one over each of the crossveins, one on the end of the second vein and one slightly before it on the third vein, and spots before the apices of the third and fourth veins. Squamae rusty reddish, with tawny fringe. Halteres yellow.

Abdomen rusty reddish yellow, very thinly pollinose, the third, fourth and fifth segments each with median apical brown triangles that extend forward to form an interrupted, incomplete median vitta. Marginals on the second segment weak and not conspicuous.

Holotype.—Female, Salisbury, Southern Rhodesia, August, 1932, in house (A. Cuthbertson).

Homoneura terminalis Loew

Sapromyza terminalis Loew, 1862, Ofvers. Kongl. Vet. Akad. Forh., XIX, p. 8.

Sapromyza sexvittata Curran, 1926, Bull. Amer. Mus. Nat. Hist., LVII, p. 350 (f.).

A well-marked and striking little species, readily recognized by the brown costal border, the strong brown streak along the fifth vein and the arrangement of the brown spots.

H. terminalis was originally described from Caffraria and redescribed as *sexvittata* from the Belgian Congo. I have a specimen from Victoria Falls, June 3, 1932 (A. Cuthertson) and one from Salisbury, Southern Rhodesia, April 20, 1932 (M. C. Mossop).

Homoneura guttulata Macquart

Sapromyza guttulata MACQUART, 1846, 'Dipt. Exot.,' Suppl. I, p. 203 (f.).
Sapromyza guttulata LOEW, 1862, Ofvers. Kongl. Vet. Akad. Forh., XIX, p. 9.

This species is rather similar to the preceding but there is no brown stripe along the fifth vein and there are twelve isolated or semi-fused brown spots. It is unknown to me but should be readily recognized from Macquart's figure.

Homoneura laxifrons, new species

Figure 4

Rusty reddish yellow, the wings with four brown spots. Length, 4.5 mm.

MALE.—Face, cheeks and lower half of the occiput yellowish, with white pollen, the upper half of the occiput and front dull rusty reddish. Front wider than long, without black hairs, the bristles arising from low tubercles; ocellars moderately long. Palpi yellow. Antennae reddish, the third segment mostly reddish brown; arista black except at the base, medium long plumose.

Thorax rusty reddish, becoming yellow beneath. Three pairs of dorsocentrals.

Legs reddish yellow; fine comb of the front femora occupying a little more than the apical third.

Wings cinereous hyaline, with four brown spots. The anterior and posterior crossveins are broadly bordered with brown, there is a large rectangular spot extending back from the costa from before the apex of the second vein to the middle of the apical cell and there is an oval spot on the middle of the apical section of the fourth vein. Squamae reddish brown, with tawny fringe. Halteres yellow.

Abdomen rusty reddish yellow, very thinly pollinose. Second segment without distinct marginals except laterally.

HOLOTYPE.—Male, Melsetter, Southern Rhodesia, October, 1934 (No. 3818).

Homoneura loewi Malloch

MALLOCH, 1931, Ann. Mag. Nat. Hist., VIII, p. 445.

I have not seen this species, described from Southern Nigeria.

Homoneura alexis, new species

Figure 9

Rusty reddish yellow, the mesonotum with traces of two dark vittae; wings with five or six pale brownish spots. Length, 4.5 mm.

MALE.—Head yellow, yellowish-white pollinose, the upper half of the occiput and the frontal vitta pale orange. Front longer than wide, with scattered tiny black hairs; ocellars as long as the front. Palpi yellow. Antennae dull orange, the arista black, short plumose. Ocellars long.

Thorax yellowish, the mesonotum very pale brownish and brownish-yellow pollinose, with traces of two narrow dark vittae lying just inside the dorsocentrals.

Scutellum brownish yellow. Three pairs of dorsocentrals.

Legs reddish yellow, the weak comb on the anterior femora covering the apical two-fifths.

Wings cinereous hyaline, with yellowish veins and five or six pale brownish spots, the spots on the end of the second vein and on the one behind it more or less fused.

Abdomen rusty reddish yellow, moderately shining, the second segment without marginals except at the sides.

HOLOTYPE.—Male, Victoria Falls, Southern Rhodesia, June 3, 1932 (A. Cuthbertson).

Homoneura bequaerti, new species

Figure 7

Wings brown with white spots, thorax mottled brown and cinereous; femora brown. Length, 4 mm.

FEMALE.—Front wider than long, the vitta reddish yellow with a broad brownish red or pale brownish vitta on each side, the brown stripes varying in width but never reaching the anterior margin or vertex; broad orbits and vertex thickly cinereous pollinose; ocellar triangle blackish and with brown pollen; ocellars long. Occiput brown on the upper half, except below the vertex, and behind the mouth; posterior orbits, lower half of the occiput and cheeks white pollinose, the orbits with a large brown spot opposite the middle of the eye and a smaller one behind their upper angles. Face brownish with a broad brownish-yellow band across the middle, and the oral margin pale. Palpi brown. Antennae reddish, the third segment mostly black, arista brown with yellow base, moderately long plumose.

Thorax mostly brown in ground color; mesonotum thickly cinereous pollinose with rather variable brown markings. There is a pair of brown lines in front that are triangularly expanded in front of the suture, a line extending back inside the humeri and turning inward at right angles, a very broad and very irregular brown band behind the suture and a large spot on each side in front of the scutellum. The scutellum is brown with the base and sides yellow. The pleura are mostly brown, with an upper and median broad grayish stripe; incisures in part broadly yellow. The bristles all arise from dark spots, except those on the base of the scutellum. Three pairs of dorsocentrals.

Legs yellowish, the basal half of the anterior femora, the posterior four except their apices, and the coxae brown or blackish. The comb on the front femora occupies about the apical half.

Wings brown and whitish, as in figure. Squamae whitish, brown apically. Halteres pale yellow.

Abdomen brown and yellowish. First segment brown, the second brown with a broad, medianly interrupted yellowish apical fascia. Third, fourth and sometimes the fifth segments with a very broad median yellow vitta and the apices yellow, the yellow expanding laterally to occupy most of the segment; fifth segment wholly

yellow. The brown spots are narrowest on the third segment and may occupy all of the fifth except the apex and the yellowish sides. The pale areas are white or cinereous-white pollinose. Second segment with weak, subappressed marginals.

TYPES.—Holotype, female, Lukolela, Belgian Congo, November 6, 1930 (J. P. Chapin). Paratype, female, Du River Camp No. 3, Liberia (J. Bequaert).

Homoneura bilineata Speiser

Lauxania bilineata SPEISER, 1910, 'Kilimandjaru-Meru Exped.,' X, p. 173.

Rusty reddish yellow, the abdomen extensively black; wings with five black spots, the median two forming a broad fascia; mesonotum brown vittate. Length, 4.5 mm.

MALE.—Front slightly longer than wide, pale orange, the frontal stripes yellowish; ocellars long. Face, cheeks and lower half of the occiput yellow, with yellowish white pollen. Palpi yellow. Antennae reddish, the third segment largely brownish red; arista black, rather short plumose.

Thorax yellowish, the dorsum rusty reddish, with rather thin cinereous white pollen and with a pair of broad vittae that are broadly united or at most separated by a line in front of the scutellum. Scutellum brown with the border and a median line reddish yellow. Three pairs of dorsocentrals.

Legs reddish yellow; fine comb on front femora limited to apical third.

Wings cinereous hyaline, with luteous tinge in front, the veins luteous; five brown spots, a large one surrounding the anterior crossvein, a large, subrectangular spot inside the tip of the second vein that is weakly separated from the large cloud over the posterior crossvein, a semi-orbicular spot on the end of the third vein, and a small, pale spot before the end of the fourth vein.

Abdomen black and rusty reddish. Each segment is apparently black apically, the black extending to the base of the segment in the middle and gradually narrowing to the sides. The under surface is almost all rusty reddish. Pollen cinereous white, very thin. Marginal bristles subappressed and weaker than usual.

MALE.—Chirinda Forest, Southern Rhodesia, November, 1930 (A. Cuthbertson), No. 2883.

Homoneura africana Adams

Figure 13

Sapromyza africana ADAMS, 1905, Kans. Univ. Sci. Bull., III, p. 171.

A dark-colored species, the mesonotum brown with narrow dorsocentral reddish-yellow vittae and pale lateral margins, the whole brownish or yellow pollinose, abdomen with black fasciae and median vitta. The front is broader than long, the ocellars moderately long. The wing bears brown spots as shown in the figure.

One female, Gurungwe, Southern Rhodesia, July, 1933 (A. Cuthbertson).

Homoneura liberia, new species

Figure 12

Wings with two brown fasciae and pair of spots; abdomen with black fasciae and median vitta. Length, 4 mm.

MALE.—Front broader than long, dull rusty reddish with two broad incomplete reddish-brown vittae that may appear dull brown in some views, the anterior ends triangularly broadened and almost contiguous; parafrontals brownish gray; no tiny black hairs. Occiput reddish, mostly brown on the upper half, cinereous pollinose. Cheeks yellowish, whitish pollinose. Face pale brownish, the orbits, a median vitta and the oral margin yellowish; pollen cinereous; a brown, triangular spot on the orbits opposite the antennae. Palpi brownish on apical half, reddish basally. Antennae reddish, the third segment brown except on the narrow base; arista black, rather short plumose.

Thorax rusty reddish, the pleura mostly brown in ground color; pollen moderately thick, cinereous, the mesonotum with a pair of moderately wide brown dorsocentral vittae and some brown pollen laterally behind the suture, the pleural sclerites mostly brown pollinose, but the sutures are broadly cinereous and the reddish areas bear cinereous pollen. Scutellum reddish brown, with about the apical half yellow, the pollen mostly brownish yellow. Three pairs of dorsocentrals.

Legs reddish yellow, the femora brownish red, with pale apices; the weak comb on the front femora occupying about the apical two-fifths.

Wings cinereous hyaline, with whitish reflections on the anterior two-thirds and brown markings as in figure.

Abdomen black and rusty reddish. Each segment with about the apical half and a broad median vitta black, the first wholly black. Marginals subappressed except on apical segments.

HOLOTYPE.—Male, Reppo's Town, Liberia, September (J. Bequaert).

Homoneura cuthbertsoni, new species

Figure 6

A large brownish species with grayish pollinose thorax; wings with large brown spots. Length, 5 to 5.5 mm.

MALE.—Front wider than long, brown, the anterior border, a median stripe and the orbits reddish or yellowish; parafrontals, posterior orbits, lower half of the occiput and cheeks cinereous or cinereous white pollinose; frontal stripes subshining but with yellowish-brown pollen; ocellars long; only a few tiny hairs on the parafrontals. Face brownish yellow, and grayish-yellow pollinose, the facial grooves blackish. Palpi brown. Antennae dark reddish, the third segment almost all brown; arista black, short plumose.

Thorax usually almost all brown in ground color but sometimes considerably reddish, especially on the sides of the mesonotum and along the pleural sutures; quite thickly gray pollinose, but there is a broad brownish band along the upper border of the pleura and there are four brown vittae on the mesonotum, a pair of moderately broad dorsocentrals and a sublateral pair beginning at the suture and extending to the posterior margin; in addition there is a brown stripe above the base of the wings. Three dorsocentrals.

Legs reddish yellow, the femora mostly brown or reddish, the coxae reddish, the front pair brown anteriorly. Comb on front femora fine and limited to the apical third.

Wings cinereous hyaline, with dark brown markings as shown in the figure. Squamae grayish, with pale brown border and yellowish fringe. Halteres yellow.

Abdomen black and reddish. First and second segments reddish, the second with the apical third or more black; third to fifth segments with the apical third or more and a broad median vitta black. Sixth segment usually black with small reddish basal spots laterally but the reddish may be more extensive. Genitalia reddish.

FEMALE.—Fifth and sixth abdominal segments marked similarly to the preceding segments.

TYPES.—Holotype, male, Dande River, Southern Rhodesia, July, 1933 (A. Cuthbertson). Allotype, female, Lomagundi, S. Rhodesia, May, 1931. Paratypes: three males and one female, same data as allotype; two males, Chirinda Forest, November, 1930 (A. Cuthbertson).

SAPROMYZA FALLEN

Although most of the African species of Lauxaniidae have been described in this genus it is doubtful that many of them belong here. There are before me two undescribed species from Southern Rhodesia, but I have seen no others from Africa.

Sapromyza rhodesiella, new species

Brownish red, with cinereous and brown pollen; mesonotum vittate; wings cinereous hyaline. Length, 3 mm.

MALE.—Front slightly longer than wide, dark brown with a median reddish vitta, the parafrontals thickly white pollinose. Occiput dark in ground color, brown pollinose, becoming grayish toward the narrowly white pollinose orbits. Cheeks narrow, with brownish pollen immediately below the eyes. Parafacials white pollinose; middle of the face brownish red, becoming brown laterally. Palpi brown. Antennae brown, the third segment brownish yellow, oval, the arista weakly pubescent.

Thorax apparently brownish red in ground color, densely cinereous pollinose, the mesonotum with four wide brown vittae, the median pair extending to the apex of the scutellum, the scutellum otherwise reddish yellow and with yellowish pollen. Four pairs of dorsocentrals, one in front of the suture.

Coxae yellowish; femora and anterior tibiae brown, the femora with thin cinereous pollen, the apices of all the femora, broad base of the front tibiae, the posterior four and their tarsi yellowish, the middle and hind tibiae with the apices broadly brown. the posterior pair with a sub-basal brown band; anterior tarsi reddish basally.

Wings cinereous hyaline, with luteous tinge. Squamae yellowish, with brown fringe. Halteres missing, probably yellow.

Abdomen brown above, brownish yellow below. Above there is an entire cinereous pollinose vitta and the apices of the segments are cinereous, the pale color projecting forward irregularly, particularly toward the sides of the segments. Genitalia brownish yellow and brown.

HOLOTYPE.—Male, Vumba Mountains, Southern Rhodesia, October 20, 1935.

Sapromyza vumbella, new species

Shining black and reddish yellow; wings with luteous tinge and yellowish basally. Length, 4.5 mm.

FEMALE.—Front slightly longer than wide, shining blackish, but rather castaneous in front, especially toward the sides; ocellars of moderate length. Face, cheeks and occiput yellow, slightly shining. Palpi reddish, their tips obscurely brown. Antennae black, the arista pubescent.

Thorax shining, black, the broad sides of the mesonotum, the pleura broadly in front and behind, and the sternum, reddish or reddish yellow. Three pairs of dorsocentrals.

Legs, including the coxae, reddish yellow, the anterior femora, except the base and apex, and the anterior tarsi, except the reddish base, blackish; the anterior tibiae become brownish on the apical half.

Wings with luteous tinge, broadly reddish yellow basally. Squamae reddish yellow, with pale fringe. Halteres reddish.

Abdomen shining black, rather short and broad.

HOLOTYPE.—Female, Vumba Mountains, Southern Rhodesia, March, 1935 (A. Cuthbertson).

Below is a list of the species described in *Sapromyza.*

afra RONDANI, 1864, Arch. Zool. Canest., Modena, III, p. 36 (Cape).
africana ADAMS = *Homoneura.*
angustifrons THOMSON, 1868, 'Eugenies Resa,' p. 564 (Mauritius, Cape).
argus MACQUART, 1846, 'Dipt. Exot.,' Suppl. 1, p. 203 (Cape).
bilineata SPEISER = *Homoneura.*
drahamensis VILLENEUVE, 1921, Ann. Soc. Ent. Belg., LXI, p. 160 (North Africa).
guttulata MACQUART = *Homoneura.*
incisuralis MACQUART, 1852, 'Dipt. Exot.,' Suppl., IV, pt. 2, p. 274 (Mauritius).
lyrica SPEISER, 1910, 'Kil.-Meru Exp.,' X, p. 174 (Kilimandjaru).
maculipes BECKER, 1907, Zeits. Hymen. Dipt., p. 383 (Algiers).
obliquepunctata MACQUART = *Homoneura.*
oestrachion SCHINER, 1868, 'Novara Reise,' Dipt., p. 278 (S. Africa).
quadrata BEZZI, 1908, Boll. Soc. Ent. Ital., XXXIX, p. 129 (Eritrea).
quadrimacula WALKER, 1849, 'List. Dipt. Brit. Mus.,' IV, p. 1093 [*Helomyza*] (West Africa).
ringens LOEW, 1862, Ofvers. Kongl. Vet. Akad. Forh., XIX, p. 8.
sexvittatus CURRAN = *Homoneura terminalis* Loew.
terminalis LOEW = *Homoneura.*
tethis SPEISER, 1910, 'Kil. Meru. Exp.,' X, p. 173 (Kilimandjaru).
trinotata LOEW = *Homoneura.*

CELYPHUS DALMAN

This genus is apparently not known from Africa, the species described belonging to the following genus.

ACELYPHUS MALLOCH

I have seen one species belonging to this genus.

Acelyphus africanus Walker

Celyphus africanus WALKER, 1849, 'List Dipt. Brit. Mus.,' IV, p. 1139.
Celyphus galamensis BIGOT, 1878, Ann. Soc. Ent. France, Bulletin, p. xlix.

A series of specimens collected by Dr. F. Zumpt, on Mount Cameroon in 1935.

The color varies from brassy green to blue. There can be little doubt about Bigot's species being the same as *africanus*.